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FEDERAL COMMUNICATIONS COMMISSION
Washington, D.C. 20554

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FEDERAL COMMUNICATIONS COMMISSION
OFFICE OF THE SECRETARY

In the Matter of)
)
Amendment of Part 2 of the)
Commission's Rules to Allocate the)
455-456 MHz, and 459-460 MHz Bands)
to the Mobile-Satellite Service)

ET Docket No. 97-214

To: The Commission

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**REPLY COMMENTS OF
MOBILE TELECOMMUNICATION TECHNOLOGIES, CORP.**

Mobile Telecommunication Technologies, Corp. ("Mtel")^{1/}, by its attorneys and pursuant to Section 1.415 and 1.419 of the Commission's rules, hereby submits its Reply Comments ("Reply Comments") in response to the Commission's Notice in the captioned proceeding.^{2/}

I. INTRODUCTION

By these Reply Comments, Mtel expresses its continued opposition to the proposed reallocation of the 455-456 MHz and 459-460 MHz bands to the Mobile Satellite Service (Earth-to-space)

^{1/} Mtel is a licensed provider of air-ground radiotelephone service in the 454-459 MHz band at numerous locations throughout the United States. It thus has a direct and distinct interest in the subject of the Notice and in the continued vitality of the air-ground service which would face unnecessary interference and substantial degradation in the quality of communication services should the Commission allocate any further co-primary operations in this already congested spectrum.

^{2/} The Notice was released on October 14, 1997 and published in the Federal Register at 62 Fed. Reg. 58932 on October 31, 1997. In the Notice, the Commission requested that comments be filed on or before 30 days after publication in the Federal Register, and that reply comments be filed on or before 45 days after publication in the Federal Register. By Order (DA 97-2608) released December 12, 1997, the filing deadline for reply comments was extended to December 22, 1997. Thus, these reply comments are timely filed.

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("MSS uplinks") on a co-primary basis for non-voice, non-geostationary mobile satellite services ("NVNGMSS"), also referred to as "Little LEO" services. Mtel also reasserts its concern that there simply is no further room for spectrum sharing capacity in the 459-460 MHz band and even if there were, the Commission has not quantified any need for this spectrum for Little LEOs. Further, Mtel strongly reiterates its position that the Commission has failed to adequately recognize and take into consideration the dynamics of the current sharing arrangement in these bands and how an additional service allocation would cause unnecessary interference to existing services. The Commission has not shown how such spectrum sharing with Little LEO systems is even technologically feasible.

The spectrum reallocation proposals would actually disserve the public interest by increasing the potential for interference in this already congested spectrum.

II. DISCUSSION

Mtel's review of the Commission's files reveals that over thirty parties filed comments in the captioned proceeding. These comments are near-universal in urging that the Commission not reallocate spectrum in the 455-456 MHz and 459-460 MHz bands to the Little LEO services because spectrum sharing capacity to support the proposed allocation does not exist^{3/} and there is no credible

^{3/} See, e.g., Comments of ABC, Inc. at 3; Chancellor Media Corporation at 2; Society of Broadcast Engineers at 10 and American Petroleum Institute at ii.

demand for Little Leo services warranting such an allocation.^{4/} Also, well documented studies plainly show that harmful interference will likely result should the Commission decide to force the land mobile services to share with the Little LEO services.^{5/} Many commenting parties expressed their concern regarding the disruption of air-ground service.^{6/} Further, only three parties filed comments in support of the Commission's proposal^{7/} and not one of them provided any justification whatsoever for the reallocation of the 459-460 MHz air-ground spectrum for their proposed Little LEO services.

A. Spectrum Sharing Between Little LEO Services And Land Mobile Operations Is Not Feasible

The Commission recognizes that the issue of spectrum sharing

^{4/} See e.g. Comments of UTC, The Telecommunications Association at 2.

^{5/} See e.g. Comments of American Petroleum Institute at 8.

^{6/} See, e.g., Comments of JCM Leasing, Marmon Aviation, Lowe's Companies, Inc., Manitoba Corporation, Trillium Photographics, Medical Claims Service, Inc., Capital Pacific Holdings, Inc., Elite Aviation, Hunt Aviation, Inc., and Great Dane Power Equipment, Inc. Each of these commenters appear to be aircraft operators which utilize 459-460 MHz air-ground services. While their comments are almost identical, the Commission must not overlook the number of parties expressing their concern about the negative impact the proposed allocation would have on the valuable air-ground services which these parties rely.

^{7/} See, e.g., Comments of Final Analysis Communication Services, Inc., Orbital Communications Corporation, and LEO One USA Corporation. These parties' self serving motives for filing supporting comments are transparent. Plainly, they stand to be the direct beneficiaries of the proposed allocation regardless of the harm done to the public interest through the degradation of the air-ground and other effected services.

between Little LEO operations and incumbent operations in the 455-456 MHz and 459-460 MHz bands are complex. See, Notice at para. 15. In its Comments, Mtel detailed how the addition of further operations can only lead to harmful interference to these existing services including air-ground traffic. See, Mtel Comments at p. 6. Due to the very nature of air-ground communications, it may be difficult to maintain proper levels of separation or otherwise attempt to reduce or eliminate the potential for harmful interference because of the problems posed by moving aircraft. Thus, the likely result of additional co-primary licensing of the Little LEO services in the 459-460 MHz band is destructive interference to both services.

There is widespread recognition that the allocation of spectrum to Little LEO services is likely to cause interference to a variety of services.^{8/} There is no study which examines frequency sharing between Little LEO uplink devices and broadcast remote pickup stations, or one-way paging transmitters and receivers, or two-way mobile telephone services, or air-to-ground mobile telephony systems. See Comments of LMCC at p. 6. More importantly, the international allocation of the band 459-460 MHz

^{8/} See, e.g., Comments of ABC, Inc., Chancellor Media Corporation, Society of Broadcast Engineers, and National Association of Broadcasters which provide insight into the adverse impact on the Broadcast Auxiliary Services; Comments of American Petroleum Institute which support exclusion of the oil spill channel from consideration; and Comments of the Land Mobile Communications Council ("LMCC") which seeks to protect land mobile services.

was based upon a seriously flawed engineering analysis which does not account for the actual manner in which this band is used by incumbent licensees. A more accurate study conducted by the LMCC demonstrates that the potential for sharing in the 450-460 MHz band by Little LEO and land mobile licensees would be virtually impossible.^{2/} See, Comments of American Petroleum Institute at p. 8. Without adequate technical sharing studies detailing the likelihood of interference, the FCC may permit a shared use allocation that results in harmful interference to the land mobile incumbents without any means of remedying the situation. Clearly, the ability to provide interference free communication services is critical to the continued competitiveness of the air-ground industry as well as providing the public with the service it demands.

B. The Comments Filed In This Proceeding Do Not Support The Need For Allocation

In its comments, Mtel submitted that the Commission failed to

^{2/} The LMCC Study also describes the serious flaws upon which seemingly conflicting studies prepared by Little LEO proponents have been founded. More importantly, though, the LMCC Study concludes that:

[I]t is apparent that significant problems exist with NVNG systems sharing existing domestic terrestrial land mobile allocations without significant probability of harmful interference. Satellite scanning receiver interference avoidance approaches will be compromised by doppler effects and time delays. When realistic assumptions are made, NVNG use of the land mobile bands would result in substantial interference to land mobile systems operating therein.

demonstrate an adequate need to invade the widely used air-ground allocation. Mtel also observed that other options may exist for the provision of Little LEO services. Neither of these positions were meaningfully disputed in the comments filed in this proceeding.

Mtel concurs with LMCC's comments that dispute whether there is sufficient documentation supporting additional NVNG MSS spectrum allocations below 1 GHz. See LMCC Comments at p. 3. The Notice fails to cite any operational or technical data that shows that the existing Little LEO allocations are congested or inadequate to support any realistic application. The Commission indicates that its conclusions regarding the demand for NVNG Services are based almost entirely on studies that Little LEO proponents created in their preparations for WRC-95.^{10/} See, Notice at para. 7.

Without any demonstrated need for such spectrum, Mtel submits that no portion of this spectrum should be allocated to Little LEO use. Such an outcome would be entirely consistent with the Commission's prior representations to the second round Little LEO licensees. The Commission specifically instructed them "to develop business plans that will accommodate the operation of their system in the spectrum they are authorized to use in the first and second

^{10/} The estimates provided are undeniably self serving and necessarily inflated. As UTC noted in its comments at p. 2, the Little LEO proponents have been scaling back their market estimates and further, the FCC, industry and the general public have no objective means to verify or comment intelligently on the accuracy of the IWG-2A demand forecast.

processing rounds without any expectation of obtaining additional spectrum." (Report and Order, IB Docket No. 96-220, at para. 134) (emphasis added). See, Comments of American Petroleum Institute at p. 12.

III. CONCLUSION

For the reasons set forth above, Mtel submits that no justifiable reason exists for the allocation of spectrum in the 459-460 MHz band to Little LEO services. While it supports Little LEO services, Mtle believes that there simply is no further room for spectrum sharing capacity in the 459-460 MHz band and suggests that the Commission explore other less harmful options. Because the vast majority of comments counseled the Commission against such spectrum allocation, Mtel urges the Commission to abandon its proposal to reallocate spectrum in the 459-460 MHz band to Little LEO operations. Rather, the Commission should protect the public interest by supporting the continued growth and vitality of 459-460 MHz air-ground service.

Respectfully submitted,

**MOBILE TELECOMMUNICATION
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